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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,796	02/24/2004	Shoji Sugino	WILL.0008	2187

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EXAMINER

BARTON, JONATHAN A

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/784,796	Applicant(s) SUGINO ET AL.	
	Examiner Jonathan Barton	Art Unit 2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/26/05 & 2/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 4, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Cowan (US 2003/0135685).

a. As for claim 1 Cowan discloses a storage control system which is connected to a host apparatus and a maintenance terminal, the storage control system comprising

i. one or more channel adapters to be a communication interface with respect to the host apparatus (Fig. 3 Item 112, Paragraph 0034 Lines 6-8),

- ii. one or more host data storages in which data from the host apparatus is stored (Fig. 3 *disks attached to item 122*, Paragraph 0034 Lines 1-3),
- iii. one or more disk adapters to be a communication interface with respect to the one or more host data storages (Fig. 3 Item 130 Paragraph 0034 Lines 18-20),
- iv. one or more operation information storage memories in which operation information of the storage control system is stored (Fig. 3 Item 116, Paragraph 0034 Lines 9-11, Paragraphs 0029 & 0037),
- v. and a memory connection section for connecting the maintenance terminal to the operation information storage memory (Fig. 3 *the wire/bus connecting items 116 & 106*),
- vi. wherein one or more channel processors are mounted to the respective channel adapters (Fig. 3 Item 106 Paragraph 0034 Lines 6-8),
- vii. one or more disk processors are mounted to the respective disk adapters (Fig. 3 Item 124 Paragraph 0034 Lines 16-17),
- viii. the respective channel processors and the respective disk processors store operation information in the one or more operation information storage memories (Paragraph 0029 & 0037)(*TLB 320 and TLB 116 are effectively the same device and hold the same data*),
- ix. and the storage control system outputs the stored operation information directly to the maintenance terminal via the memory

connection section in a form in which the operation information stored in the operation information storage memory is stored in a storage for the maintenance terminal (Paragraphs 0022, 0023, 0037).

b. As for claim 2 Cowan discloses a storage control system which is connected to a host apparatus and a maintenance terminal, the storage control system comprising:

- x. one or more channel adapters to be a communication interface with respect to the host apparatus (Figure 2 Item 212 Paragraph 0031 Lines 5-9),
- xi. one or more host data storages in which data from the host apparatus is stored (Figure 1 – *disks connected to item SCSI controller*),
- xii. one or more operation information storages in which operation information of the storage control system is stored (Figure 2 Item 201 Paragraph 0028 Lines 6-13),
- xiii. one or more operation information storage memories in which operation information of the storage control system is stored (Figure 1 Item 324 Paragraph 0027 Lines 12-19),
- xiv. one or more first disk adapters to be a communication interface with respect to the one or more host data storages (Figure 1 – *SCSI controller attached to disks and item 321*),

- xv. and one or more second disk adapters to be a communication interface with respect to the one or more operation information storages (Figure 1 Item 317 Paragraph 0028 Lines 14-16),
- xvi. wherein one or more channel processors are mounted to the respective channel adapters (Figure 2 Item 212 Paragraph 0031 Lines 5-9),
- xvii. one or more first disk processors are mounted to the respective first disk adapters (Figure 1 Item 319 Paragraph 0028 Lines 14-16),
- xviii. the respective channel processors and the respective first disk processors store operation information in the one or more operation information storage memories (Paragraph 0028, Paragraph 0027 Lines 1-6),
- xix. and the one or more second disk adapters read out the stored operation information from the one or more operation information storage memories to store the- operation information in the one or more operation information storages (Paragraph 0027 Lines 12-19),
- xx. and the storage control system outputs the stored operation information to the maintenance terminal in a form in which the operation information stored in the one or more operation information storages is not stored in a storage for the maintenance terminal (Paragraph 0027 Lines 6-12).

c. As for claim 4 Cowan discloses the storage control system wherein the operation information storage is connected to the maintenance terminal, and the operation information stored in the operation information storage is read out by the maintenance terminal (Figure 2 Item 216 Paragraph 0032 Lines 1-9).

d. As for claim 6 Cowan discloses the storage control system wherein the operation information storage is physically different from the host data storage and includes first to third connection sections, the first and the second connection sections of which are connected to the second disk adapter (Fig. 2 - *connections between items 206 & 244 and item 204*) , and the third connection section of which is connected to the maintenance terminal (Fig. 2 – *connection between items 216 & 220*).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 & 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan (US 2003/0135685).

e. As for claim 3 Cowan does not distinctly disclose the storage control system wherein the second disk adapter reads out the operation information from the operation information storage and sends the operation information to the

maintenance terminal. However, in view of the system setup (shown in Fig. 1 & 2) one of ordinary skill in the art can see that the operation information is necessarily read out of the operation information storage by the second disk adapter and sent to the maintenance terminal (Fig. 1 Items 318 & 314, Fig. 2 Items 216 & 314).

f. As for claim 5 Cowan does not distinctly disclose the storage control system wherein the operation information storage is detachably mountable. However according to MPEP Chapter 2144.04 Part V Section A “[The] fact that a claimed device is portable or movable is not sufficient by itself to patentably distinguish over an otherwise old device unless there are new or unexpected results.”

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cowan (US 2003/0135685) in view of Matsunami et al (US 6,810,462).

g. As for claim 7 Cowan fails to disclose the storage control system wherein the respective operation information storages are storages which are used also as the host data storages; and include first and second connection sections, the first connection section of which is connected to the second disk adapter, and the second connection section of which is connected to the maintenance terminal via a switch connected to the second disk adapter.

h. Matsunami teaches the storage control system wherein the respective operation information storages are storages which are used also as the host data storages; and include first and second connection sections, the first connection

section of which is connected to the second disk adapter, and the second connection section of which is connected to the maintenance terminal via a switch connected to the second disk adapter (Fig. 4 Item 11004, Col. 4 Lines 64-67).

i. It would have been obvious to one of ordinary skill in the art to combine Matsunam's multi-function memory teaching with the storage control system of Cowan because both systems function as memory control systems operate as storage control systems and combining the operation information storage and operation information storage into one memory would cut down on parts and therefore would cut down the cost of the system.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- j. Ido et al (US 2004/0128453)
- k. LeCrone et al (US 6,910,098)
- l. Baxter, III (US 6,865,643)
- m. Fish et al. (US 4,241,420)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Barton whose telephone number is 571-272-8157. The examiner can normally be reached on Monday - Friday 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jonathan Barton
Examiner
Art Unit 2186



JB



MATTHEW D. ANDERSON
PRIMARY EXAMINER